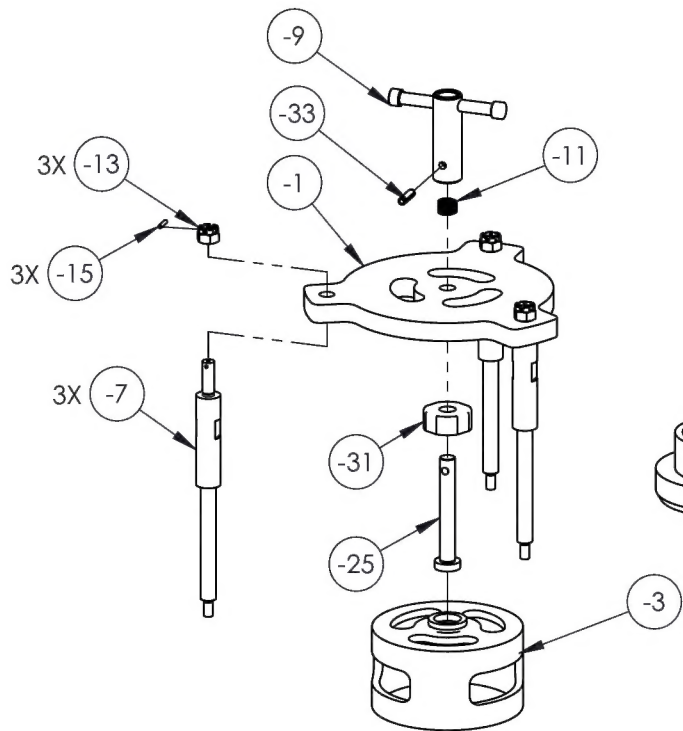
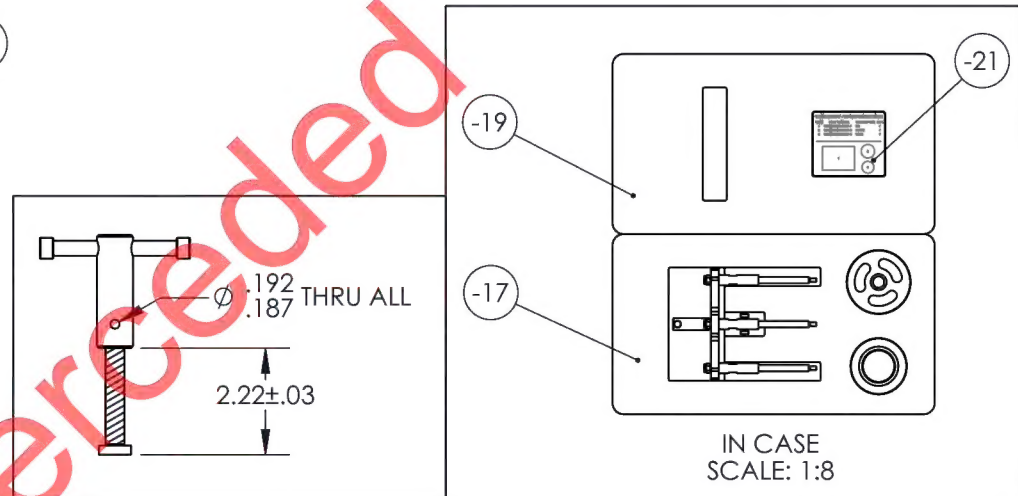


This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.



REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		RELEASED FOR PRODUCTION.	1/7/2016	DPD	JAG
2	16-0048	-1 REDESIGNED ADDED FEATURE Ø1.38 \pm .13. -3 CH'D DESIGN DELETED 1/4-24 \pm .09, DELETED DETAIL B, ADDED DIM Ø.710 \pm .005/-0.000, \pm .19, ADDED THREAD CALL OUT 1-12 UNF-2A. -7 CH'D DIM WAS 2.37 IS 2.47. -9 CH'D P/N WAS CLM-1050-BHS IS CLM-10-BHN. -17 CH'D CUTOUT FOR REDESIGNED TOOL, DELETED DIM Ø7.52 \pm 5.54, ADDED RECTANGLE CUTOUT. -19 DELETED Ø7.52 \pm 1.41 HOLE AND ADDED SLOT CUTOUT. -21 CH'D TOOL DESIGN DELETED -9 FROM PLACARD. -25, -27, -29 & -31 ADDED PARTS AND DWGS. -33 ADDED P/N 90692A723.	3/8/2016	RJC	JAG
3	16-0085	-1 REMOVED DIMS Ø5.52 & 6X R .39. -3 ADDED DIM 3X 60° EQUALLY SPACED, Ø2.37, Ø.63, 3X .64; CH'D DIM WAS Ø.710 \pm .005/-0.000 IS Ø.710 \pm .005/-0.000. -17 CHANGED CUTOUT FOR LEG SUPPORT, CHANGED FILLET TO CHAMFER WAS 4X R.69 IS 4X .71 X 45°. -19 ADDED CUTOUTS TO FIT CASE, ADDED CHAMFER 2X .52 X 45°. -25 ADDED SEPERATE WELDMENT AND MACHINING SKETCHES. ADDED GD&T LIMITS. -29 CH'D DIM WAS .19 IS .25. -31 ADDED WRENCH FACES.	7/20/2016	SM	JAG



ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	PLATE	6061		2
			-3	1	GUIDE	4140/4142		3
			-5	1	BASE	6061		4
			-7	3	STUD	4140/4142		5
		B/O	-9	1	BAR-HANDLE NUT	STEEL	M10 (CARR-LANE #CLM-10-BHN)	1
		B/O	-11	1	THREADED INSERT	S.S.	M10 X 1.5 X 10mm (MCMASTER-CARR #91732A648)	1
		B/O	-13	3	SLOTTED NUT	STEEL	M8 X 1.25, CLASS 8 (MCMASTER-CARR #93760A222)	1
		B/O	-15	3	SPRING PIN	S.S.	M2 X 12mm (MCMASTER-CARR #91610A206)	1
		B/O	-17	1	BOTTOM FOAM	ETHAFOAM 220, BLACK	5.79 X 11.26 X 20.12 (CASE SOLUTIONS)	6
		B/O	-19	1	TOP FOAM	ETHAFOAM 220, BLACK	1.79 X 11.26 X 20.12 (CASE SOLUTIONS)	7
			-21	1	CONTENTS PLACARD	PLASTIC		8
		B/O	-23	1	CASE	PLASTIC	PELICAN #APP-1510-E	N/S
	X		-25	1	FOOT WELDMENT			9
	1		-27		STUD	STEEL	M10 X 1.5 X 80 (MCMASTER-CARR #94595A222) MODIFIED	10
			-29		FOOT	4140/4142 Q & T		11
			-31	1	CAP	4140/4142 Q & T		12
		B/O	-33	1	SLOTTED SPRING PIN	STEEL	Ø3/16 X 3/4 (MCMASTER-CARR #90692A723)	1
		B/O		1	DART PLACARD	ALUMINUM	RB41011	N/S
	ASSY -25							

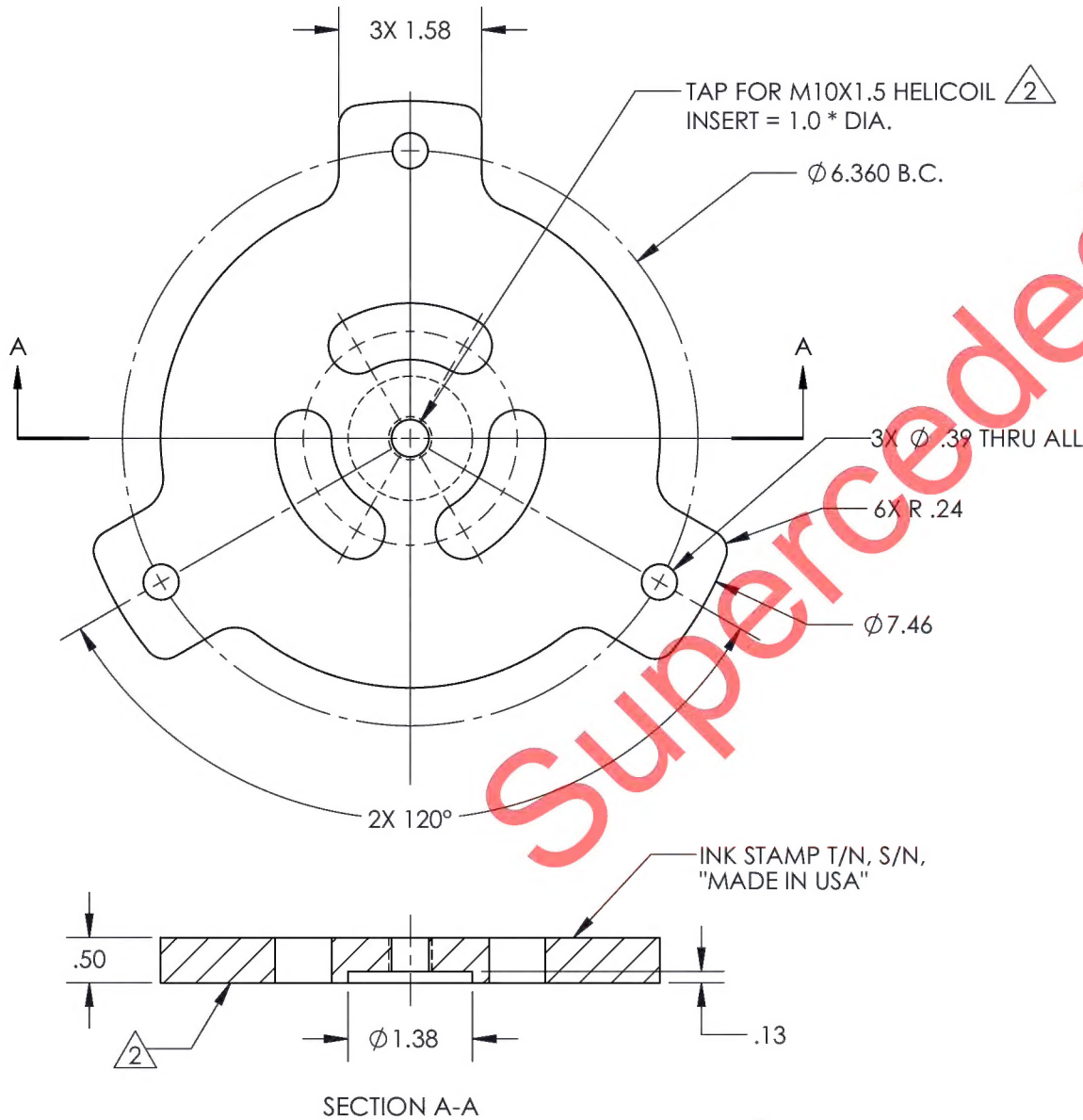
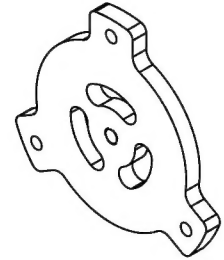
NOTE:
REF. AIRBUS T/N: M652V3002101.



TITLE			
TGB INPUT SEAL EXCHANGE			
DWG NO.			REV
RBEM652V3002101			3
MAT'L		UNLESS OTHERWISE SPECIFIED	
TREAT		DIMENSIONS ARE IN INCHES	
FINISH		.XXX \pm .005 FRACTIONS \pm 1/8	
SPEC		.XX \pm .01 ANGLES \pm 5°	
DRAWN BY:		.X \pm .1 SURFACES = 125	
CHECKED:		1. BREAK ALL SHARP EDGES	
OPPS APPR:		.015 x 45° OR .015R	
QA APPR:		2. DIMENSIONAL LIMITS APPLY	
APPROVED:		AFTER PLATING	
SCALE		3. INTERPRET DIM AND TOL PER	
1:5		ASME Y14.5M-2009	
DATE		USED ON MODEL	
11/30/2015		H175	
		SHEET 1 OF 12	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
2	16-0048	-1 REDESIGNED ADDED FEATURE Ø1.38 ∇ .13.	3/8/2016	RJC
3	16-0085	-1 REMOVED DIMS Ø5.52 & 6X R .39.	7/20/2016	SM



NOTE:

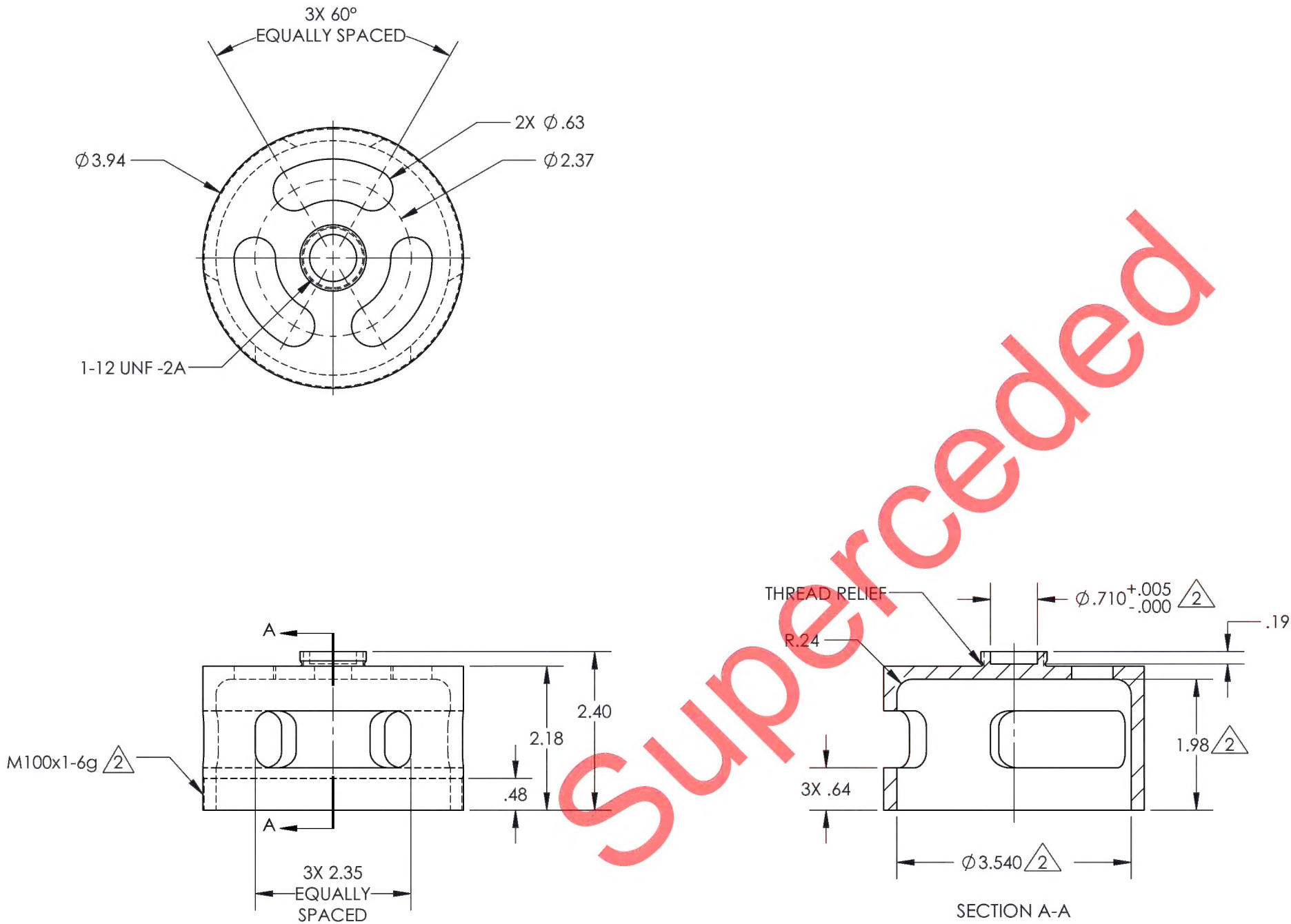
- DUAL FINISH:
1ST: CLEAR ANODIZE, MIL-A-8625 TYPE II CLASS I.
2ND: POWDER COAT YELLOW, FED #13538.
- NO POWDER COAT THIS SURFACE.
- USE CAD DATA TO MANUFACTURE.

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-1	REV 3
MAT'L 6061	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT FINISH SEE NOTE 1	.XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125°
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: MACKOVJAK	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	USED ON MODEL
QA APPR: LINDSAY	H175
APPROVED: J Gilbert	
SCALE 1:2	DATE 11/30/2015
SHEET 2 OF 12	

(-1)
PLATE

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-3 CH'D DESIGN DELETED 1/4-24 ∇ .09, DELETED DETAIL B, ADDED DIM \varnothing .710 \pm .005 \pm .000, ∇ .19, ADDED THREAD CALL OUT 1-12 UNF -2A.	3/8/2016	RJC	JAG
3	16-0085	-3 ADDED DIM 3X 60° EQUALLY SPACED, \varnothing 2.37, \varnothing .63, 3X .64; CH'D DIM WAS \varnothing .710 \pm .005 \pm .000 IS \varnothing .710 \pm .005 \pm .000 \triangle .	7/20/2016	SM	JAG



- NOTE:
- DUAL FINISH:
1ST: ZINC PLATE: ASTM B633 TYPE 1 SC2.
2ND: POWDER COAT YELLOW, FED #13538.
 - NO PAINT THIS SURFACE.
 - USE CAD DATA TO MANUFACTURE.

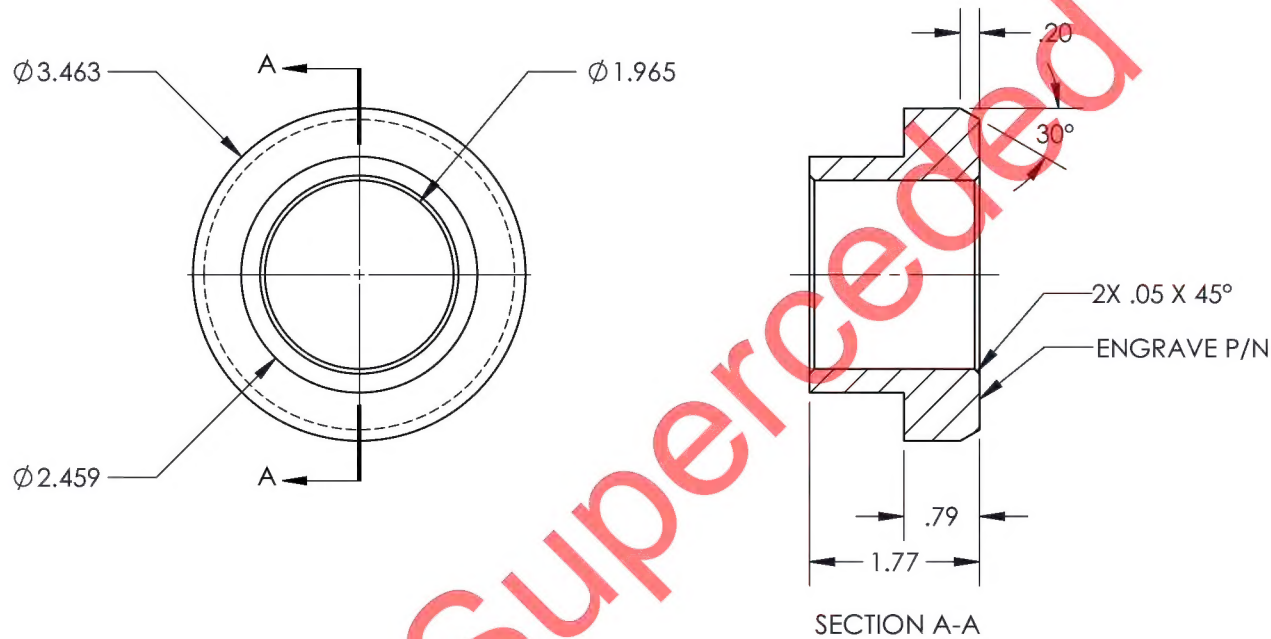
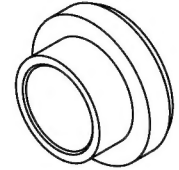
DART AEROSPACE			
TITLE TGB INPUT SEAL EXCHANGE			
DWG NO. RBEM652V3002101-3			REV 3
MAT'L 4140/4142		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT TREAT		.XXX \pm .005 FRACTIONS \pm 1/8	
FINISH SEE NOTE 1		.XX \pm .01 ANGLES \pm 5°	
SPEC		.X \pm .1 SURFACES = 125 \checkmark	
DRAWN BY: DUERFELDT		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: MACKOVJAK		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: J Gilbert		H175	
SCALE 1:2		DATE 11/30/2015	SHEET 3 OF 12

(-3)

GUIDE

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
				APPROVED

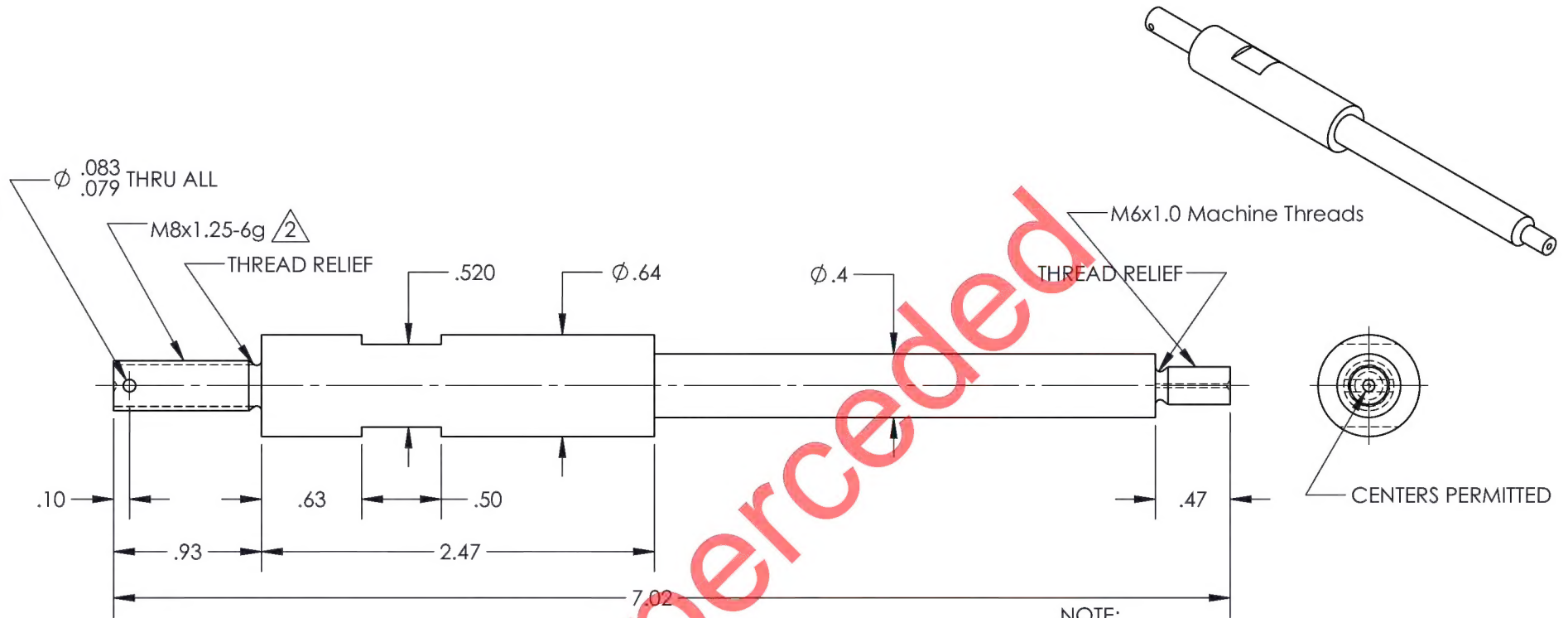


(-5)
BASE

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-5	REV 3
MAT'L 6061	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH CLEAR ANODIZE	.XXX ± .005 FRACTIONS ± 1/8
SPEC MIL-A-8625, TYPE II, CLASS I	.XX ± .01 ANGLES ± 5°
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125✓
CHECKED: MACKOVJAK	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY
APPROVED: J Gilbert	AFTER PLATING
	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
	USED ON MODEL
	H175
SCALE 1:2	DATE 11/30/2015
	SHEET 4 OF 12

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
2	16-0048	-7 CH'D DIM WAS 2.37 IS 2.47.	3/8/2016	RJC
				JAG



NOTE:
1. DUAL FINISH:
1ST: ZINC PLATE: ASTM B633 TYPE 1 SC 2.
2ND: POWDER COAT YELLOW, FED #13538

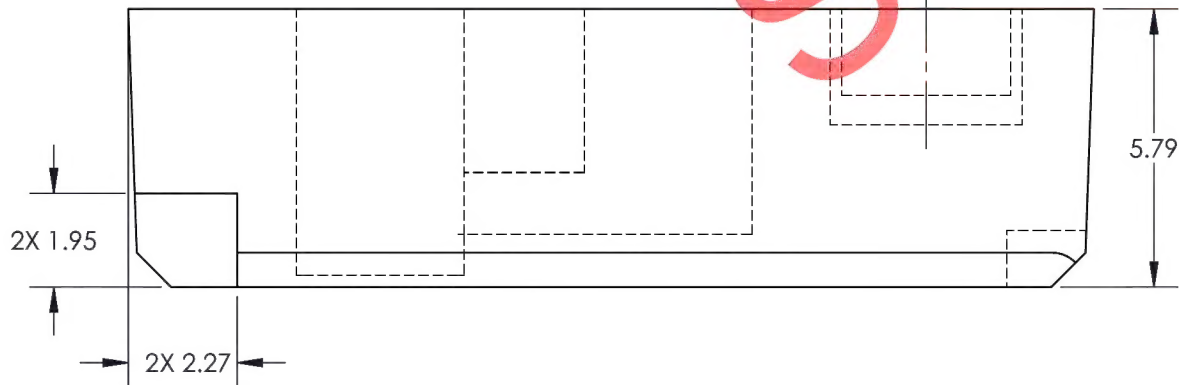
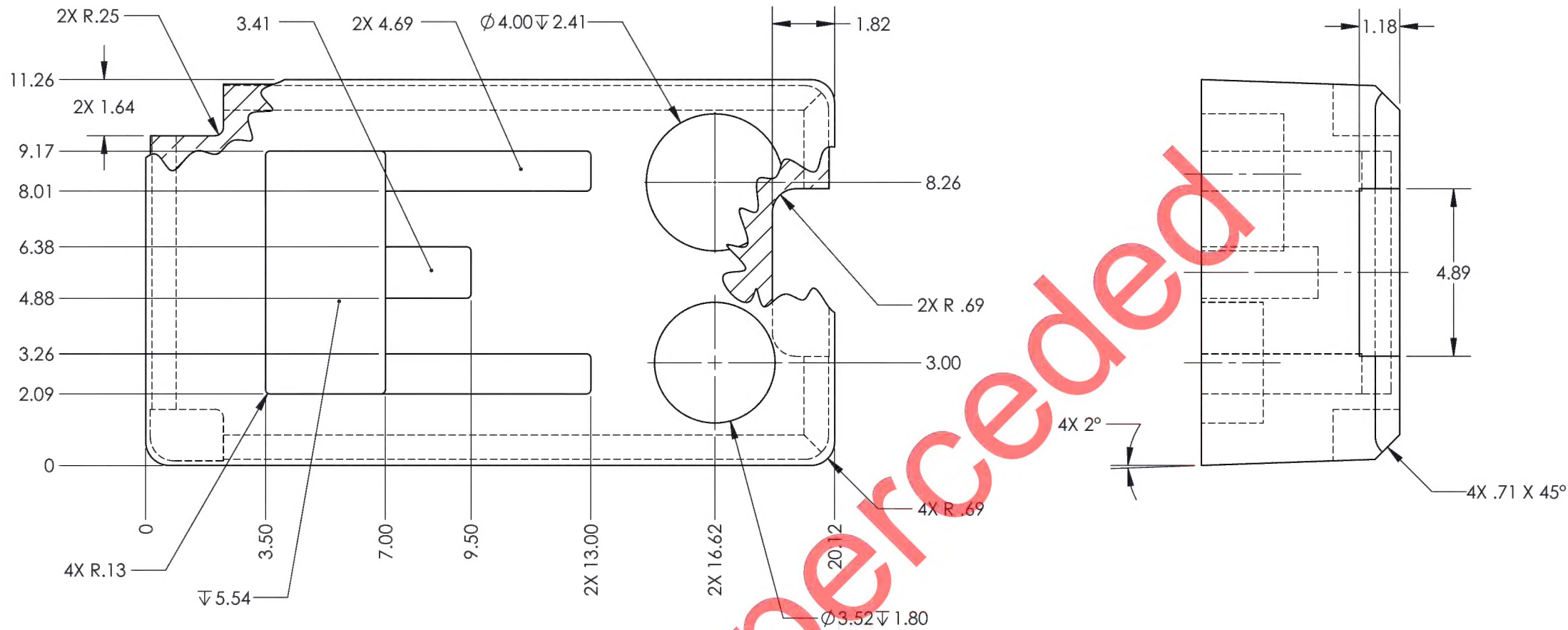
2. NO POWDER COAT THIS SURFACE.

(-7)
STUD

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-7	REV 3
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT FINISH SEE NOTE 1	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± 5°
DRAWN BY: DUERFELDT	.X ± .1 SURFACES = 125
CHECKED: MACKOVJAK	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
QA APPR: LINDSAY	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
APPROVED: J Gilbert	USED ON MODEL H175
SCALE 1:1	DATE 11/30/2015
SHEET 5 OF 12	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-17 CH'D CUTOUT FOR REDESIGNED TOOL, DELETED DIM Ø7.52 ∇ 5.54, ADDED RECTANGLE CUTOUT.	3/9/2016	RJC	JAG
3	16-0085	-17 CHANGED CUTOUT FOR LEG SUPPORT, CHANGED FILLET TO CHAMFER WAS 4X R.69 IS 4X .71 X 45°.	7/20/2016	SM	JAG



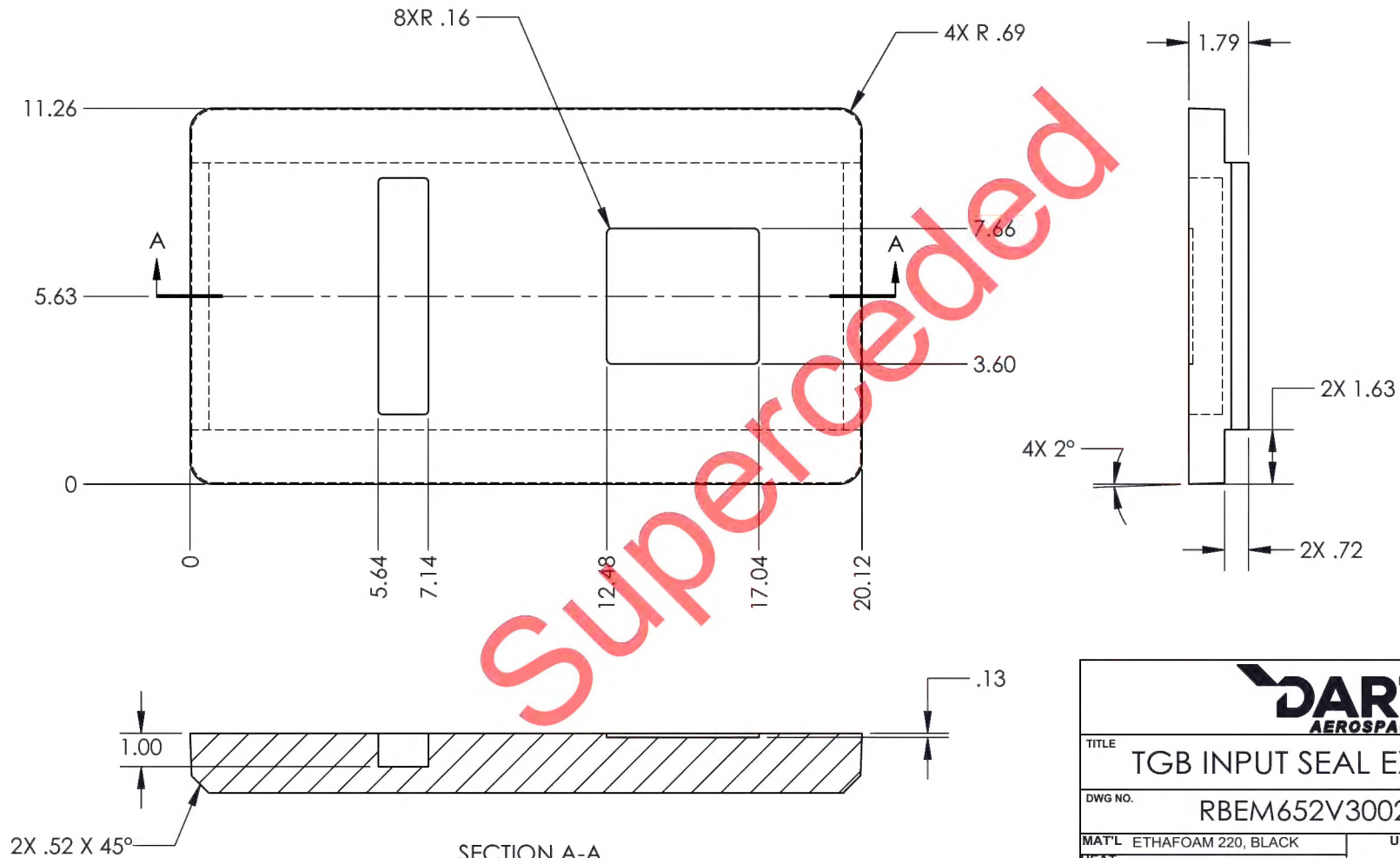
(-17)

BOTTOM FOAM

DART AEROSPACE			
TITLE TGB INPUT SEAL EXCHANGE			
DWG NO. RBEM652V3002101-17			REV 3
MAT'L ETHAFOAM 220, BLACK		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT TREAT		.XXX \pm .010 FRACTIONS \pm 1/8	
FINISH		.XX \pm .03 ANGLES \pm 1°	
SPEC		.X \pm .1 SURFACES = 125✓	
DRAWN BY: DUERFELDT		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: MACKOVJAK		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: J Gilbert		H175	
SCALE 1:4		DATE 11/30/2015	SHEET 6 OF 12

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-19 DELETED Ø7.52 ∇ 1.41 HOLE AND ADDED SLOT CUTOUT.	3/9/2016	RJC	JAG
3	16-0085	-19 ADDED CUTOUTS TO FIT CASE, ADDED CHAMFER 2X .52 X 45°.	7/20/2016	SM	JAG



SECTION A-A

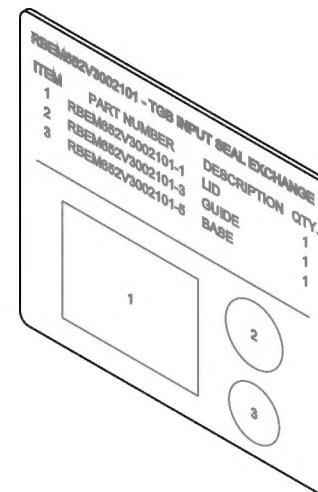
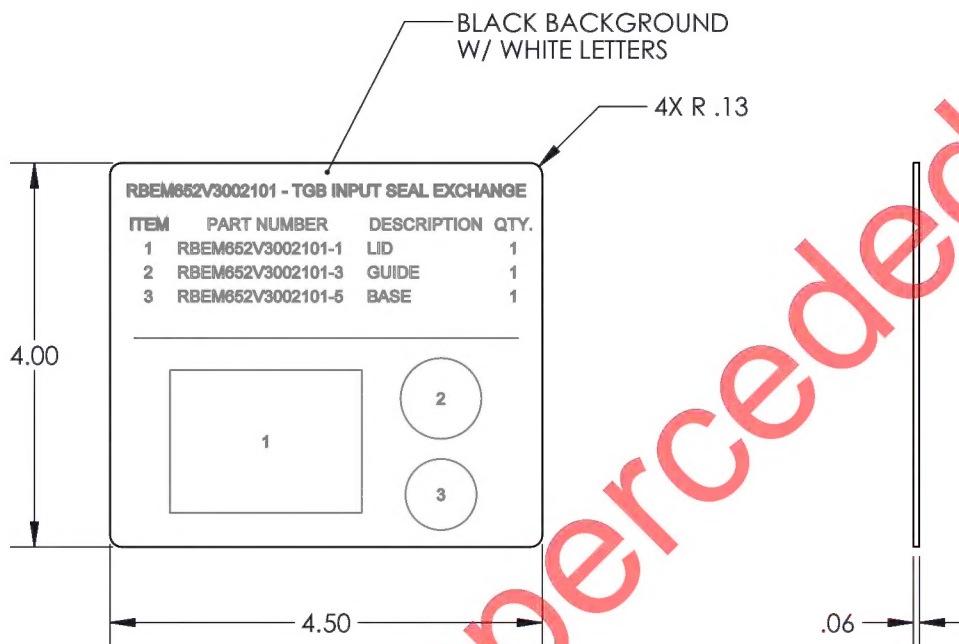
(-19)

TOP FOAM

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-19	REV 3
MAT'L ETHAFOAM 220, BLACK	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
FEAT TREAT FINISH	.XXX \pm .005 FRACTIONS \pm 1/8
	.XX \pm .01 ANGLES \pm 5°
	.X \pm .1 SURFACES = 125/
SPEC	
DRAWN BY:	DUERFELDT
CHECKED:	MACKOVJAK
OPPS APPR:	ANDERSON
QA APPR:	LINDSAY
APPROVED:	J Gilbert
USED ON MODEL H175	
SCALE 1:5	DATE 11/30/2015
SHEET 7 OF 12	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-21 CH'D TOOL DESIGN DELETED -9 FROM PLACARD.	3/9/2016	RJC	JAG



NOTE:
USE PDF.

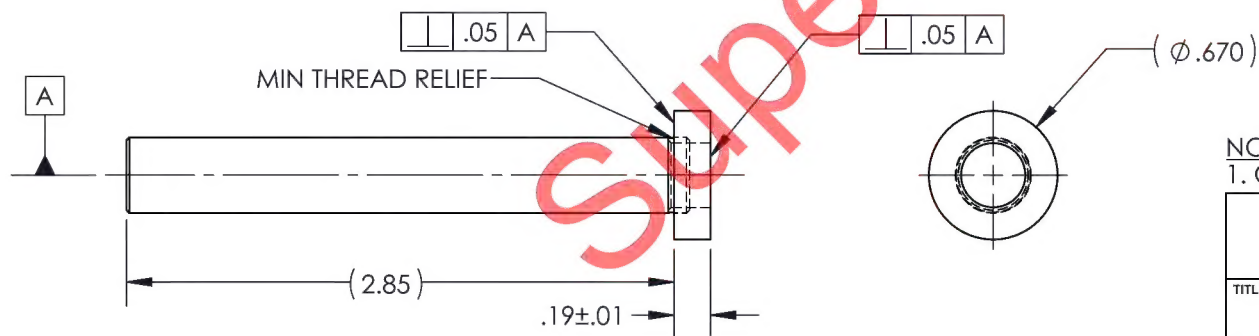
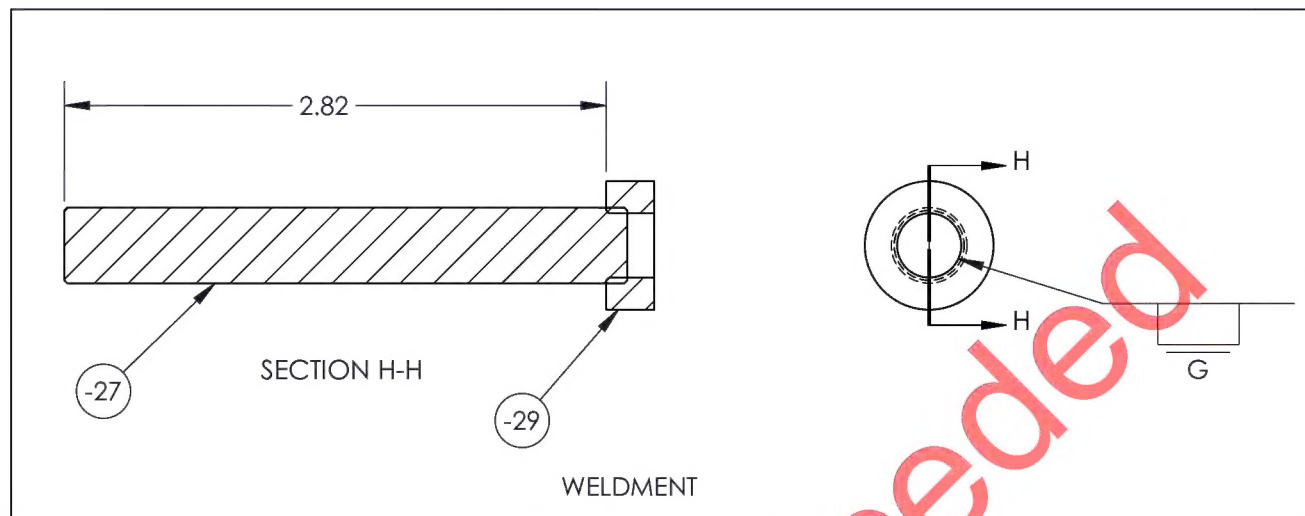
(-21)

CONTENTS PLACARD

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-21	REV 3
MAT'L PLASTIC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
FEAT TREAT FINISH	.XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125°
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: MACKOVJAK	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	USED ON MODEL
QA APPR: LINDSAY	H175
APPROVED: J Gilbert	
SCALE 1:2	DATE 11/30/2015 SHEET 8 OF 12

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-25 ADDED PART AND DWG.	3/8/2016	RJC	JAG
3	16-0085	-25 ADDED SEPERATE WELDMENT AND MACHINING SKETCHES. ADDED GD&T LIMITS.	7/20/2016	SM	JAG



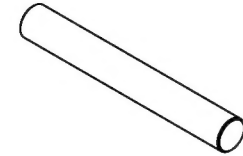
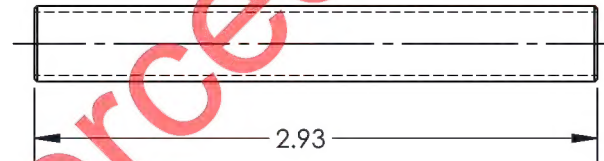
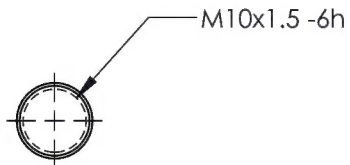
(-25)
FOOT WELDMENT

NOTES:
1. COMPLETE WELDMENT PRIOR TO MACHINING.

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-25	REV ?
MAT'L ZINC PLATE	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ± 1° .X ± .1 SURFACES = 125°
SPEC ASTM B633 TYPE I SC 2	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: MACKOVJAK	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	USED ON MODEL
QA APPR: LINDSAY	H175
APPROVED: GILBERT	
SCALE 1:1	DATE 3/8/2016
SHEET 9 OF 12	

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-27 PART & ADDED DWG.	3/8/2016	RJC	JAG



Superceded

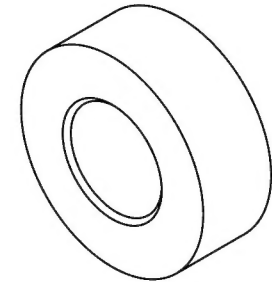
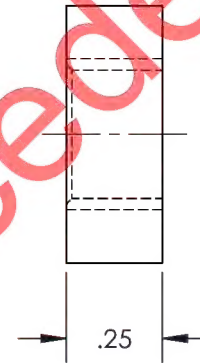
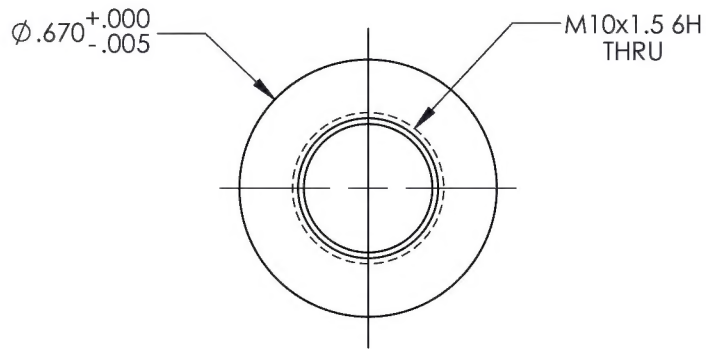
(-27)

STUD

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-27	REV 3
MAT'L STEEL	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH SEE -25	.XXX ± .005 FRACTIONS ± 1/8
SPEC	.XX ± .01 ANGLES ± 5°
	.X ± .1 SURFACES = 125°
DRAWN BY: CLOUGH	1. BREAK ALL SHARP EDGES
CHECKED: MACKOVJAK	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SCALE 1:1	DATE 3/8/2016
	SHEET 10 OF 12

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-29 PART & ADDED DWG.	3/8/2016	RJC	JAG
3	16-0085	-29 CH'D DIM WAS .19 IS .25.	7/20/2016	SM	JAG



Superseded

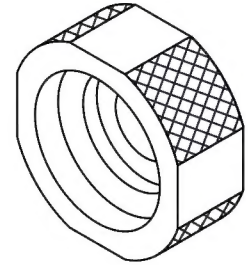
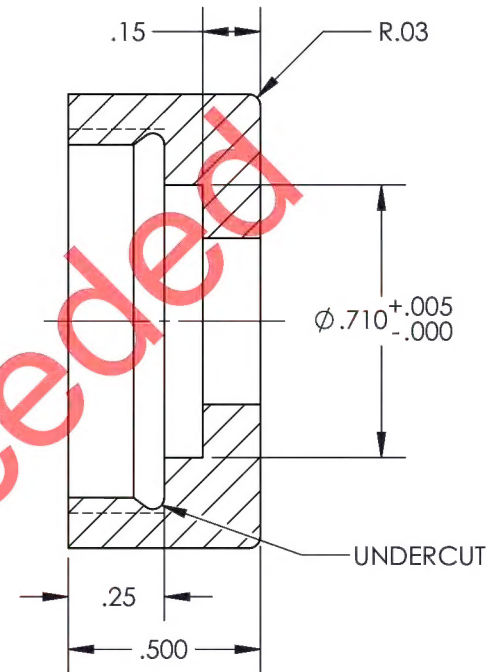
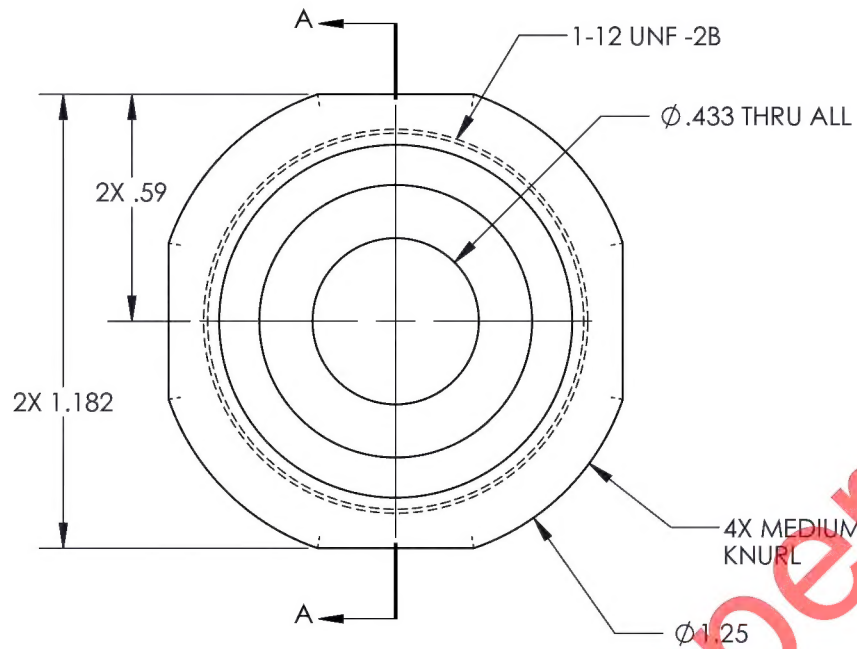
-29

FOOT

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-29	REV 3
MAT'L 4140/4142 Q & T HEAT TREAT FINISH SEE -25 SPEC	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125° ✓	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: CLOUGH	USED ON MODEL
CHECKED: MACKOVJAK	H175
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 2:1	DATE 3/8/2016 SHEET 11 OF 12

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	16-0048	-31 PART & ADDED DWG.	3/8/2016	RJC	JAG
3	16-0085	-31 ADDED WRENCH FACES.	7/20/2016	SM	JAG



SECTION A-A

(-31)
CAP

DART AEROSPACE	
TITLE TGB INPUT SEAL EXCHANGE	
DWG NO. RBEM652V3002101-31	REV 3
MAT'L 4140/4142 Q & T HEAT TREAT FINISH ZINC PLATE SPEC ASTM B633 TYPE I SC 2	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX \pm .005 FRACTIONS \pm 1/8 .XX \pm .01 ANGLES \pm 5° .X \pm .1 SURFACES = 125°	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: CLOUGH CHECKED: MACKOVJAK OPPTS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	
USED ON MODEL H175	
SCALE 2:1	DATE 3/8/2016
SHEET 12 OF 12	